

IN THE CLAIMS

1. (Currently Amended) A method of managing the state of a computer network with redundant network connections, comprising:

determining the state of a primary network connection between each pair of networked nodes;

determining the state of a redundant network connection between each pair of networked nodes; and

selecting either the primary network connection or the redundant network connection, but not both, for sending and receiving data between each pair of networked nodes, such that the network path selected to be used to communicate is selected independently based on the determined network states for each pair of networked nodes.

2. (Original) The method of claim 1, further comprising building a network status table that indicates results of determining the state of primary and redundant network connections between each pair of networked nodes.

3. (Original) The method of claim 2, wherein the network status table comprises data representing network status based on data received at a node from other network nodes.

4. (Original) The method of claim 3, wherein the data received at a node from other networked nodes comprises a diagnostic message.

5. (Original) The method of claim 4, wherein the data received at a node from other networked nodes comprises data representing the ability of the other nodes to receive data from other different network nodes.

6. (Original) The method of claim 2, wherein the network status table comprises data representing network status based on a node's ability to send data to other nodes.

7. (Original) The method of claim 3, wherein the network status table further comprises data representing network status based on a node's ability to send data to other nodes.

8. (Original) The method of claim 1, wherein selecting the primary or redundant network connection for communication between each pair of networked nodes comprises:

selecting the primary network connection if the state of the primary network connection is determined to be operable; and

selecting the redundant network connection if the state of the primary network connection is determined to be inoperable.

9. (Original) The method of claim 1, wherein selecting the primary or redundant network connection for communication between each pair of networked nodes comprises:

selecting the primary network connection to transmit data if the state of the primary network connection is determined to be operable to transmit data;

selecting the primary network connection to receive data if the state of the primary network connection is determined to be operable to receive data;

selecting the redundant network connection to transmit data if the state of the primary network connection is determined to be inoperable to transmit data; and

selecting the redundant network connection to receive data if the state of the primary network connection is determined to be inoperable to receive data.

10. (Original) The method of claim 1, wherein selecting a connection for sending and receiving data between each pair of network nodes comprises selecting a connection for sending and receiving data from a first node to one or more connected intermediate nodes, and selecting a connection for sending and receiving data from an intermediate node to a second node.

Claims 11-30 (Cancelled).

31. (Original) The method of claim 1, wherein determining the state of connections between each pair of networked nodes comprises determination of whether each node in a pair of networked nodes can send data to the other node and can receive data from the other node in the pair.

32. (Currently Amended) A computer network interface, the interface operable to:
determine the state of a primary network connection between the network interface and the network interfaces of other network nodes;

determine the state of a redundant network connection between the network interface and the network interfaces of other network nodes; and

select either the primary network connection or the redundant network connection, but not both, for communication with each of the other network nodes, such that the network connection selected is selected independently based on the determined network states for each other network node.

33. (Original) The computer network interface of claim 32, the interface further comprising a network status table that indicates results of the determination of the state of the primary and redundant network connections between the computer network interface and the network interfaces of other network nodes.

34. (Original) The computer network interface of claim 33, wherein the network status table comprises data representing network status based on data received at a node from other network nodes.

35. (Original) The computer network interface of claim 34, wherein the data received at a node from other networked nodes comprises a diagnostic message.

36. (Original) The computer network interface of claim 35, wherein the data received at a node from other networked nodes further comprises data representing the ability of the other nodes to receive data from other different network nodes.

37. (Original) The computer network interface of claim 33, wherein the network status table comprises data representing network status based on a node=s ability to send data to other nodes.

38. (Original) The computer network interface of claim 34, wherein the network status table further comprises data representing network status based on a node=s ability to send data to other nodes.

39. (Original) The computer network interface of claim 32, wherein selecting either the primary network connection or the redundant network connection for communication with each of the other network nodes comprises:

selecting the primary network connection if the state of the primary network connection is determined to be operable; and

selecting the redundant network connection if the state of the primary network connection is determined to be inoperable.

40. (Original) The computer network interface of claim 32, wherein selecting either the primary network connection or the redundant network connection for communication with each of the other network nodes comprises:

selecting the primary network connection to transmit data if the state of the primary network connection is determined to be operable to transmit data;

selecting the primary network connection to receive data if the state of the primary network connection is determined to be operable to receive data;

selecting the redundant network connection to transmit data if the state of the primary network connection is determined to be inoperable to transmit data; and

selecting the redundant network connection to receive data if the state of the primary network connection is determined to be inoperable to receive data.

41. (Original) The computer network interface of claim 32, wherein selecting a connection for sending and receiving data between each pair of network nodes comprises selecting a connection for sending and receiving data from a first node to one or more connected intermediate nodes, and selecting a connection for sending and receiving data from an intermediate node to a second node.

42. (Original) The computer network interface of claim 32, wherein determining the state of connections between each pair of networked nodes comprises determination of whether each node in a pair of networked nodes can send data to the other node and can receive data from the other node in the pair.

43. (Currently Amended) A machine-readable medium with instructions thereon, the instructions when executed on a computer operable to cause the computer to:

determine the state of a primary network connection between the network interface and the network interfaces of other network nodes;

determine the state of a redundant network connection between the network interface and the network interfaces of other network nodes; and

select either the primary network connection or the redundant network connection, but not both, for communication with each of the other network nodes, such that the network connection selected is selected independently based on the determined network states for each other network node.

44. (Original) The machine-readable medium of claim 43, the instructions further operable to cause a computer to create and maintain a network status table that indicates results of the determination of the state of the primary and redundant network connections between the computer network interface and the network interfaces of other network nodes.

45. (Original) The machine-readable medium of claim 44, wherein the created network status table comprises data representing network status based on data received at a node from other network nodes.

46. (Original) The machine-readable medium of claim 45, wherein the data received at a node from other networked nodes comprises a diagnostic message.

47. (Original) The machine-readable medium of claim 46, wherein the data received at a node from other networked nodes further comprises data representing the ability of the other nodes to receive data from other different network nodes.

48. (Original) The machine-readable medium of claim 44, wherein the created network status table comprises data representing network status based on a node=s ability to send data to other nodes.

49. (Original) The machine-readable medium of claim 45, wherein the network status table further comprises data representing network status based on a node=s ability to send data to other nodes.

50. (Original) The machine-readable medium of claim 43, wherein selecting either the primary network connection or the redundant network connection for communication with each of the other network nodes comprises:

selecting the primary network connection if the state of the primary network connection is determined to be operable; and

selecting the redundant network connection if the state of the primary network connection is determined to be inoperable.

51. (Original) The machine-readable medium of claim 43, wherein selecting either the primary network connection or the redundant network connection for communication with each of the other network nodes comprises:

selecting the primary network connection to transmit data if the state of the primary network connection is determined to be operable to transmit data;

selecting the primary network connection to receive data if the state of the primary network connection is determined to be operable to receive data;

selecting the redundant network connection to transmit data if the state of the primary network connection is determined to be inoperable to transmit data; and

selecting the redundant network connection to receive data if the state of the primary network connection is determined to be inoperable to receive data.

52. (Original) The machine-readable medium of claim 43, wherein selecting a connection for sending and receiving data between each pair of network nodes comprises selecting a connection for sending and receiving data from a first node to one or more connected intermediate nodes, and selecting a connection for sending and receiving data from an intermediate node to a second node.

PRELIMINARY AMENDMENT

Serial Number: 09/513,010

Filing Date: February 25, 2000

Title: MULTIPLE NETWORK FAULT TOLERANCE VIA REDUNDANT NETWORK CONTROL

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Docket No: H16-26156-1623

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 349-9581 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully Submitted,

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CERTIFICATE UNDER 37 CFR § 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelop addressed to: Commissioner for Patents, Mail Stop RCE, P.O. Box 1450, Alexandria, VA 22313-1450, on this 29th day of June 2005.

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